CLAIMS

1. A compound characterized in that it is chosen from:

- the peptide represented by the sequence SEQ ID No: 1 below:

SEQ ID No: 1 Lys-Ala-Lys-Pro-Val-Gln-Lys-Leu-Asp-Asp-Asp-Asp-Asp-Gly-Asp-Asp-Thr-Tyr-Lys-Glu-Glu-Arg-His-Asn-Lys

and also:

- the homologs of this peptide exhibiting at least 60% similarity with the sequence SEQ ID No: 1 and comprising from 15 to 40 amino acids,

- the derivatives of this peptide selected from:
  - the pharmaceutically acceptable salts of this peptide,
  - the functional fragments of this peptide,
  - the chemical analogs of this peptide, chosen from those in which: one or more amino acids of the peptide sequence have been replaced with their D enantiomer; one or more amide peptide linkages (-CO-NH-) have been replaced with an isosteric linkage such as: $-CH_2NH-$, CH_2S-, $-CH_2CH_2-$, -CH=CH- (cis and trans), $-COCH_2-$, $-CH(OH)CH_2-$ and $-CH_2SO-$; one or more amino acids have been replaced with a non-natural amino acid,
  - the chemical derivatives of this peptide, chosen from: des-alpha amino peptide compounds; substituted N-alpha acyl derivatives of the form RCO-, in which R represents an alkyl, alkenyl, alkynyl, aryl or aralkyl group, that is linear, branched or cyclic, comprising from 1 to 50 carbon atoms; derivatives substituted on the C-terminal acid function with a group chosen from $-NH_2$, and

alkyloxy, alkylthio or alkylamino of the form -OR, -SR or -NHR, in which R represents an alkyl, alkenyl, alkynyl or aryl chain or an aralkyl group, that is linear, branched or cyclic, comprising from 1 to 50 carbon atoms, derivatives carrying a pharmacophore substitutent, polymers of this peptide.

2. The peptide as claimed in claim 1, characterized in that it exhibits at least 70% similarity with the sequence SEQ ID No: 1, even more preferentially 80%, preferably at least 90%, and even more favorably at least 95%, or better still 98%, similarity with the sequence SEQ ID No: 1.

3. The peptide as claimed in claim 2, characterized in that it comprises from 20 to 30 amino acids.

4. The peptide as claimed in claim 1, characterized in that it is a function fragment of the peptide SEQ ID No: 1 capable of inducing an immune response.

5. A peptide comprising at most 100 amino acids, characterized in that it comprises a sequence as claimed in claim 1, chosen from: SEQ ID No: 1, a function fragment of SEQ ID No: 1, a homolog of SEQ ID No: 1, a chemical analogue of SEQ ID No: 1 or a chemical derivative of SEQ ID No: 1.

6. A protein comprising a peptide as claimed in any one of claims 1 to 5, coupled to a carrier protein.

7. An antibody characterized in that it recognizes a peptide as claimed in any one of claims 1 to 5 or a protein as claimed in claim 6.

8. The antibody as claimed in claim 7, characterized

in that it is directed against the peptide of sequence SEQ ID No: 1.

9. The antibody as claimed in claim 7 or claim 8, characterized in that it is a polyclonal antibody.

10. The antibody as claimed in claim 7 or 8, characterized in that it is a monoclonal antibody.

11. A fragment or derivative of an antibody as claimed in any one of claims 7 to 10, characterized in that it is chosen from Fab, F(ab')2 and ScFv fragments.

12. A nucleic acid characterized in that it encodes a peptide as claimed in any one of claims 1 to 5 or a protein as claimed in claim 6.

13. A vector characterized in that it comprises a nucleic acid as claimed in claim 12.

14. A recombinant cell comprising a nucleic acid or a vector as claimed in either one of claims 12 and 13.

15. A nonhuman transgenic organism comprising a nucleic acid as claimed in claim 12 in its cells.

16. A nucleotide probe or primer characterized in that it comprises a nucleic acid as claimed in claim 12.

17. The use of a probe or of a primer as claimed in claim 16, for detecting, *in vitro*, the presence of pathogenic leptospiral strains in a biological sample or contaminated water.

18. The use of an antibody as claimed in any one of claims 7 to 11, for detecting, *in vitro*, the

presence of pathogenic leptospiral strains in a biological sample or contaminated water.

19. The use of a peptide as claimed in any one of claims 1 to 5 or of a protein as claimed in claim 6, for detecting, *in vitro*, the presence of anti-leptospiral antibodies in a biological sample.

20. A kit for detecting, *in vitro*, the presence of pathogenic leptospiral strains in a biological sample or contaminated water, characterized in that it comprises a probe or an oligonucleotide or a pair of primers as claimed in claim 16.

21. A pharmaceutical composition comprising a peptide or a protein or an antibody or a nucleic acid as claimed in any one of claims 1 to 12, and a pharmaceutically acceptable support.

22. The composition as claimed in claim 21, characterized in that it is a vaccine.

23. The composition as claimed in claim 21, characterized in that it is a preparation of anti-PP antibodies for therapeutic use.

24. The use of a nucleic acid or of a vector as claimed in either one of claims 12 and 13, for the *in vitro* production of a peptide as claimed in any one of claims 1 to 5 or of a protein as claimed in claim 6.

25. The use of a nucleic acid or of a vector as claimed in either one of claims 12 and 13, for the *ex vivo* production of a peptide as claimed in any one of claims 1 to 5 or of a protein as claimed in claim 6.